



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/564,658 | 01/13/2006 | Hans-Helmut Bechtel | DE0300247 | 9677 |
| 24737 | 7590 | 11/29/2006 | EXAMINER | |
| PHILIPS INTELLECTUAL PROPERTY & STANDARDS | | | | SUCH, MATTHEW W |
| P.O. BOX 3001 | | | | ART UNIT |
| BRIARCLIFF MANOR, NY 10510 | | | | PAPER NUMBER |
| | | | | 2891 |

DATE MAILED: 11/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/564,658 | BECHTEL ET AL. | |
| | Examiner | Art Unit | |
| | Matthew W. Such | 2891 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 12 January 2006.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-5 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-5 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 13 January 2006 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>13 January 2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Objections

2. Claim 4 recites the limitation "the surface" in Line 3. There is insufficient antecedent basis for this limitation in the claim. The Examiner provisionally interprets the phrase to be "a surface".

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Riess ('355).
 - a. Regarding claim 1, Riess teaches an electroluminescent device having a substrate (Element 130), a metallic structure (Element 131.1), and a layer assembly with a first electrode (Element 131), an electroluminescent layer (Element 132), and a second

electrode (Element 133). The metallic structure is in electrical contact with the first electrode (Fig. 16). The resistance of the metallic structure is lower than the layer resistance of the first electrode since the metal layer is aluminum and the first electrode is a wide bandgap semiconductor material.

b. Regarding claim 2, Riess further teaches that the metallic structure is incorporated into the substrate (Fig. 16) since the substrate is formed around the metallic structure.

The manner in which the claim is written does not limit the structural relationship between the metallic structure and substrate since they need only to be “incorporated into” each other.

c. Regarding claim 3, Riess further teaches that the layer thickness of the metallic structure is greater than the layer thickness of the first electrode (Fig. 16).

d. Regarding claim 4, Riess further teaches that the metallic structure covers up to 10% of the surface of the substrate (Fig. 16). The Examiner notes that the manner in which the claim is written does not limit the surface of the substrate to be any particular surface. An interpretation that the metallic structure does not cover the surface of the substrate formed by the direct interface between Element 130 and 131 meets the claim since it is less than 10% of that surface.

e. Regarding claim 5, Riess further teaches that the metallic structure has a striped pattern as shown in Figure 16.

5. Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Namiki ('936).

a. Regarding claim 1, Namiki teaches an electroluminescent device having a substrate (Element 6), a metallic structure (Element 7, 7a), and a layer assembly with a first electrode (Element 2), an electroluminescent layer (Element 3, 4), and a second electrode (Element 5). The metallic structure is in electrical contact with the first electrode (Figures). The resistance of the metallic structure is lower than the layer resistance of the first electrode (see, for example, Col. 6, Lines 11-23).

b. Regarding claim 2, Namiki further teaches that the metallic structure is incorporated into the substrate, since it has a structural relationship with the substrate. The manner in which the claim is written does not limit the structural relationship between the metallic structure and substrate since they need only to be "incorporated into" each other.

c. Regarding claim 3, Namiki further teaches that the layer thickness of the metallic structure is greater in thickness than the first electrode (see, for example, Figs. 6B and 6D).

d. Regarding claim 4, Namiki further teaches that the metallic structure covers up to 10% of the surface of the substrate (see, for example, Figs. 5, 8, 9, 13, 14). The Examiner notes that the manner in which the claim is written does not limit the surface of the substrate to be any particular surface. An interpretation that the metallic structure is not in direct contact with the substrate and therefore covers no percentage of the surface meets the claim. An interpretation that the metallic structure covers one side of the substrate but not an opposing surface also meets the claim since the opposing surface can be construed as “the surface”.

e. Regarding claim 5, Namiki further teaches that the metallic structure can be strips (see, for example, Figs. 4 and 13).

6. Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Feldman ('391).

a. Regarding claim 1, Feldman teaches an electroluminescent device having a substrate (Element 1), a metallic structure (Element 3, 4), and a layer assembly with a first electrode (Element 2), an electroluminescent layer, and a second electrode (Col. 1, Lines 15-22; Col. 3, Lines 33-36). The metallic structure is in electrical contact with the first electrode (Figures). The resistance of the metallic structure is lower than the layer resistance of the first electrode (Abstract, Col. 1, Lines 15-40; Col. 2, Lines 16-18; Col. 3, Lines 13-30).

- b. Regarding claim 2, Feldman further teaches that the metallic structure is incorporated into the substrate, since it has a structural relationship with the substrate. The manner in which the claim is written does not limit the structural relationship between the metallic structure and substrate since they need only to be "incorporated into" each other.
- c. Regarding claim 3, Feldman further teaches that the metallic structure is greater in thickness than the first electrode (Fig. 2; Col. 3, Lines 13-30).
- d. Regarding claim 4, Feldman further teaches that the metallic structure covers up to 10% of the surface of the substrate (Fig. 1). The Examiner notes that the manner in which the claim is written does not limit the surface of the substrate to be any particular surface. An interpretation that the metallic structure covers one side of the substrate but not an opposing surface meets the claim since the opposing surface can be construed as "the surface" and the metallic structure covers none of the back surface (Fig. 2).
- e. Regarding claim 5, Feldman further teaches that the metallic structure can be strips or grids (Fig. 1).

7. Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Terao ('581).

- a. Regarding claim 1, Terao teaches an electroluminescent device having a substrate (Element 1), a metallic structure (Element 2b, 2ba, 2bb), and a layer assembly with a first electrode (Element 2), an electroluminescent layer (Element 3, 3r, 3h), and a second electrode (Element 4). The metallic structure is in electrical contact with the first electrode (Figures). The resistance of the metallic structure is lower than the layer resistance of the first electrode (see, for example, Tables 1-6).
- b. Regarding claim 2, Terao further teaches that the metallic structure is incorporated into the substrate; since it has a structural relationship with the substrate. The manner in which the claim is written does not limit the structural relationship between the metallic structure and substrate since they need only to be “incorporated into” each other.
- c. Regarding claim 3, Terao further teaches that the thickness of the metallic structure is greater than the thickness of the first electrode (Figs. 4b, 6b, 9).
- d. Regarding claim 4, Terao further teaches that the metallic structure covers less than 10% of a surface of the substrate (Col. 10, Lines 6-11 and 52-55). For example, the substrate is 16,016 mm² and the metallic structure is 0.019 mm wide. Even if the metallic structure is as long as the longest side of the substrate (143 mm), the structure still covers less than 10% (or up to 10%) of the surface of the substrate. The Examiner further notes that the manner in which the claim is written does not limit the surface of

the substrate to be any particular surface. An interpretation that the metallic structure covers one side of the substrate but not an opposing surface meets the claim since the opposing surface can be construed as “the surface” and the metallic structure covers none of the back surface (Fig. 7b).

e. Regarding claim 5, Terao further teaches that the metallic structure can be strips (see, for example, Fig. 1, 3, 5, 7; Col. 10, Line 56).

8. Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Hosokawa ('035).

a. Regarding claim 1, Hosokawa teaches an electroluminescent device having a substrate (Elements 1 and 6 in combination), a metallic structure (Element 5), and a layer assembly with a first electrode (Element 2), an electroluminescent layer (Element 3), and a second electrode (Element 4). The metallic structure is in electrical contact with the first electrode (Figures). The resistance of the metallic structure is lower than the layer resistance of the first electrode (see, for example, Abstract, Disclosure of Invention Sections).

b. Regarding claim 2, Hosokawa further teaches that the metallic structure is incorporated into the substrate (see, for example, Figs. 1 and 2) since the substrate is formed around the metallic structure. The manner in which the claim is written does not

limit the structural relationship between the metallic structure and substrate since they need only to be “incorporated into” each other.

c. Regarding claim 3, Hosokawa further teaches that the metallic structure thickness is greater than the thickness of the first electrode (see, for example, Figs. 1 and 2).

d. Regarding claim 4, Hosokawa further teaches that the metallic structure covers up to 10% of the surface of the substrate (Fig. 16). The Examiner notes that the manner in which the claim is written does not limit the surface of the substrate to be any particular surface. An interpretation that the metallic structure does not cover the surface of the substrate formed by the direct interface between Element 130 and 131 meets the claim since it is less than 10% of that surface.

e. Regarding claim 5, Hosokawa further teaches that the metallic structure can be strips (Figs. 2 and 13, for example).

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew W. Such whose telephone number is 571-272-8895. The examiner can normally be reached on Monday - Friday 8AM-5PM EST.

Art Unit: 2891

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bradley W. Baumeister can be reached on 571-272-1722. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Matthew W. Such
Examiner
Art Unit 2891


B. WILLIAM BAUMEISTER

SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800

MWS
11/24/06